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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/584,664

Applicant(s)

MYSORE ET AL.

Examiner

JUSTIN WOLF

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/88)
Paper No(s)/Mail Date ____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities: periods are present at the end of steps (iv and v) where semicolons are needed. Appropriate correction is required.
2. Claim 11 objected to because of the following informalities: the word "metallsied" in line 2 is misspelled. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1-15 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claim 1 recites the limitation "the drum dried, cabinet dried, and sun dried potato cubes, and dried onion shreds" in step (v) of claim 1. There is insufficient antecedent basis for this limitation in the claim.

Also regarding claim 1, it is indefinite as to whether the potato flour, onion, and dill powder in step (vi) of claim 1 are the powdered potato cubes, onion shreds, and Indian dill recited in steps (v) and (iv), respectively. In addition, the ratios of the ingredients recited in step (vi) are indefinite because it is unclear whether the proceeding numbers are units of measurement, percentages, etc. Furthermore, step (vii) of claim 1 is indefinite because the word "said" does not refer to any particular step

or embodiment of the invention. For the reasons stated above, claim 1 is rendered indefinite.

6. Claim 5 recites the limitation "the enzyme" in step (ii) of claim 5. There is insufficient antecedent basis for this limitation in the claim.

7. Claims 7-10 recites the limitation "wherein step (vi) the peak viscosity, hot paste viscosity, and cold paste viscosity" in lines 1-2 of claims 7-10. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 9, it is indefinite because the claim recites the use of native potato flour in the soup mix. This is indefinite because its parent claim 1, does not claim the use of native potato flour; therefore, it is indefinite whether native potato flour or the drum dried, cabinet dried, or sun dried potato flour are to be used alone or in combination.

Regarding claim 10, it is indefinite because what is required by claim 1 cannot be altered by a dependent claim. The parent claim 1 claims the use of corn and wheat flour in the soup mix and dependent claim 10 claims the substitution of the corn and wheat flour with the cabinet dried potato flour.

8. **Regarding claim 11**, it is indefinite because the term "gauge" does not establish what the unit of thickness (mm, μ m, etc.) is for the pouch.

9. The term "excellent" in claim 12 is a relative term which renders the claim indefinite. The term "excellent" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The use of this term

renders the following qualities of the soup indefinite: color, taste, flavor, and consistency because it does not establish what is meant by "excellent".

Also regarding claim 12, it is indefinite because the phrase "soup mix: water:: 1: 10-12" does not distinguish any value to the ratio of soup mix to water given (by parts, ounces, grams, etc.).

10. **Regarding claim 13**, it is indefinite because the fat range (8-9.5%) recited in claim 13 is not consistent with the fat range in its parent claim 1 (3-8%).

11. **Regarding claim 15**, it is indefinite because it improperly claims dependency on itself and should be dependent on claim 14. In addition, it is also indefinite because the fat range (8-9.5%) recited in claim 13 is not consistent with the fat range in its parent claim 1 (3-8%).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1-3, 7-14 rejected under 35 U.S.C. 103(a) as being unpatentable over Spaeti et al. (US 3987207) in view of Harris et al. (US 5232732) and Dill (NPL Document) and in further view of Murakami (US 6536689) and Willard (US 3535128) taken with the evidence given by Antioxidant Properties of Dry Soup (NPL Document) and Polybags (NPL Document).

Regarding claim 1, Spaeti et al. discloses the process of making a dry, granular instant soup mix (Abstract). The instant soup mix of Spaeti et al. discloses mixing skim milk powder (15.5% by weight), corn flour (21% by weight), potato flour (5% by weight), wheat flour (13% by weight), chicken fat (3% by weight), salt (10% by weight), sugar (5% by weight), and onion powder (1% by weight) (Example 2). Furthermore, Spaeti et al. also discloses that the dry mix is processed by pulverizing through 10-60 mesh sieve (1680-251 μm) (Col. 1, lines 50-52).

Furthermore, Spaeti et al. also does not disclose the addition of corn flour, potato flour, salt, and onion powder at 12-15%, 10-12%, 3-5%, and 2-4% by weight, respectively; however, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the amounts of corn flour, potato flour, salt, and onion powder to allow for the desired consistency and flavor for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Spaeti et al. does not disclose the addition of maltodextrin and various herbs and spices, along with a final moisture content of 3-5%.

Harris et al. discloses a dry soup mix containing maltodextrin (11.05% by weight) and a mixture of ground herbs and spices including pepper (1.33% by weight) and leafy herbs like rosemary, thyme, turmeric, and clove (Col. 3, lines 35-45; Col. 4, line 40). Furthermore, Harris et al. discloses the final moisture content to be no greater than 5% by weight (Col. 2, lines 36-38).

It would have been obvious to one of ordinary skill in the soup art at the time of the invention to modify the soup mix of Spaeti et al. to include the maltodextrin, various herbs and spices, and final moisture content of Harris et al. because it would allow the final product to be wholesome and full flavored and easily mixed with water (Col. 1, lines 50-55).

Harris et al. does not disclose the addition of ground dill leaves as a flavorant or herb to the dry soup mix. However, Harris does disclose that various leafy herbs like rosemary, thyme, turmeric, and clove can be ground and used to flavor the dry soup mix (Col. 3 lines 35-45).

Dill discloses that dill or Indian dill can be ground or dried and used in soups (NPL Document, Page 1-2).

It would have been obvious to one of ordinary skill in the soup art at the time of the invention to modify the dry soup mix of Harris et al. to include the ground or dried dill or Indian dill of Dill because dill is known to be an added flavorant to soups (Dill; Page 1-2).

Furthermore, Spaeti et al., Harris et al., and Dill do not disclose cutting cleaned dill leaves, soaking the dill leaves in sodium bicarbonate, and powdering the dill leaves to create dill powder. Also, Spaeti et al., Harris et al., and Dill do not disclose the powdering of drum dried, cabinet dried, or sun dried potato cubes and dried onion shreds for the instant soup mix.

Murakami discloses a method for manufacturing mulberry leaf powder by first washing the picked leaves to clean them (Col. 1, lines 49-50, 59-60). Murakami also

discloses soaking the leaves in a solution containing sodium bicarbonate and salt that is added to water in a ratio of 0.01-1% (Col. 1, lines 64-67-Col. 2, lines 1-4). Furthermore, after soaking, the leaves are dried in a drying machine at a temperature of about 80°C (Col. 2, lines 26-29) and pulverized to a size of about 75-300µm (Col. 2, lines 43-49).

Furthermore, Murakami and the claims differ in that Murakami does not teach the exact same proportions of sodium bicarbonate percentage in solution and pore size of the sieve as recited in the instant claims.

However, one of ordinary skill in the art at the time of the invention was made would have considered the invention to have been obvious because the compositional proportions taught by Murakami overlap the instantly claimed proportions and therefore are considered to establish a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art to select any portion of the disclosed ranges including the instantly claimed ranges from the ranges disclosed in the prior art reference, particularly in view of the fact that;

"The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages", In re Peterson 65 USPQ2d 1379 (CAFC 2003).

In addition, Murakami does not disclose soaking the leaves in the sodium bicarbonate for 20-40 minutes; however, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the soaking time to allow for the sodium bicarbonate to react fully with the leaves for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Murakami also does not disclose drying the leaves at a temperature between 40-50°C; however, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the temperature of drying to allow for the leaves to dry fully before being powdered for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Furthermore, it would be obvious to one of ordinary skill in the herb art at the time of the invention to cut the mulberry leaves into 4-5cm shreds before further processing because it would allow the mulberry to be processed more efficiently in later steps.

Although, Murakami does not exactly disclose the powdering of dill leaves, the dill and mulberry leaf are common herby plants that are used in cooking; therefore, it would have been obvious to one of ordinary skill in the soup art at the time of the invention to modify the dry soup mix of Spaeti et al., Harris et al., and Dill to include the method of powdering mulberry leaves because both the mulberry leaves and dill leaves are herbs used for cooking with and flavoring food (Murakami; Col. 4, lines 20-23; Dill; Page 1-2).

Willard discloses drum drying mashed potatoes (Col. 4, lines 7--9; Fig. 1, #20) and powdering them through a sieve with pore sizes of about 0.045 inches (Col. 5, lines 4-12; Fig. 1, #42).

It would have been obvious to one of ordinary skill in the soup art at the time of the invention to modify the dry soup mix of Spaeti et al., Harris et al., and Dill to include the dehydration and powdering process of Willard because it provides an efficient way

to dehydrate the potatoes into potato flour that can be used in an instant soup mix (Col. 3, lines 22-26).

Furthermore, although, Willard does not disclose the powdering of dried onion shreds, the process of Willard is capable of processing a number of various products (Col. 3, lines 18-21); therefore, one having ordinary skill in the art at the time of the invention could use the dehydration methods of Willard to create dried onion powder.

Regarding claim 2, Murakami discloses soaking the mulberry leaves in sodium bicarbonate but is silent to the ratio of shreds to solution; however, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the ratio of shreds and sodium bicarbonate solution to 1:2 because it would allow for improved color fixation and retention during storage (Antioxidant Properties of Dry Soup, Page 2, Col. 2, lines 1-2) for the intended application, since it has been held that discovering an optimum value or a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Therefore, it would have been obvious to one of ordinary skill in the soup art at the time of the invention to modify the process of making dry soup mix of Spaeti et al., Harris et al., and Dill to include the soaking of leaves in the sodium bicarbonate solution in a ratio of 1:2 of Murakami because it would improve the color fixation and retention of dill during storage (Antioxidant Properties of Dry Soup, Page 2, Col. 2, lines 1-2).

Regarding claim 3, Willard discloses the drum drying of the potatoes and onions (Col. 4, lines 7-9; Fig. 1, #20; Col. 3, lines 18-21).

It would have been obvious to one of ordinary skill in the soup art at the time of the invention to modify the dry soup mix of Spaeti et al., Harris et al., and Dill to include the drum drying process of Willard because it provides an efficient way to dehydrate the potatoes into potato flour that can be used in an instant soup mix (Col. 3, lines 22-26).

Regarding claim 7, Spaeti et al., Harris et al., Dill, Murakami, and Willard taken with the evidence given by Antioxidant Properties of Dry Soup disclose the presently claimed invention; therefore, Spaeti et al., Harris et al., Dill, Murakami, and Willard taken with the evidence given by Antioxidant Properties of Dry Soup intrinsically disclose that the peak viscosity, hot paste viscosity, and cold paste viscosity of the soup mix using drum dried potato flour in step (vi) are 127, 107, and 186 cps, respectively, as presently claimed.

Regarding claim 8, Spaeti et al., Harris et al., Dill, Murakami, and Willard taken with the evidence given by Antioxidant Properties of Dry Soup disclose the presently claimed invention; therefore, Spaeti et al., Harris et al., Dill, Murakami, and Willard taken with the evidence given by Antioxidant Properties of Dry Soup intrinsically disclose that the peak viscosity, hot paste viscosity, and cold paste viscosity of the soup mix using cabinet dried potato flour in step (vi) are 145, 126, and 288 cps, respectively, as presently claimed.

Regarding claim 9, Spaeti et al., Harris et al., Dill, Murakami, and Willard taken with the evidence given by Antioxidant Properties of Dry Soup disclose the presently claimed invention as the examiner interprets the powdered potato cubes form native potato flour; therefore, Spaeti et al., Harris et al., Dill, Murakami, and Willard taken with

the evidence given by Antioxidant Properties of Dry Soup intrinsically disclose that the peak viscosity, hot paste viscosity, and cold paste viscosity of the soup mix using native potato flour in step (vi) are 182, 167, and 291 cps, respectively, as presently claimed.

Regarding claim 10, Spaeti et al., Harris et al., Dill, Murakami, and Willard taken with the evidence given by Antioxidant Properties of Dry Soup disclose the presently claimed invention; therefore, Spaeti et al., Harris et al., Dill, Murakami, and Willard taken with the evidence given by Antioxidant Properties of Dry Soup intrinsically disclose that the peak viscosity, hot paste viscosity, and cold paste viscosity of the soup mix using cabinet dried potato flour in place of corn flour and wheat flour in step (vi) are 133, 130, and 208 cps, respectively, as presently claimed.

Regarding claim 11, Harris et al. discloses packaging the dry soup mix in a polyethylene film laminate coated with aluminum that is bonded to polyester (Col. 6, lines 16-22). The total bag thickness of Harris et al. is 0.00035 inches (280 gauge) thick (Col. 6, line 19).

It would have been obvious to one of ordinary skill in the soup art at the time of the invention to package the dry soup mix of Spaeti et al., Harris et al., Dill, Murakami, and Willard in the polyethylene/polyester/aluminum package of Harris et al. because the package will not impart any odor or flavor the finished product (Col. 6, lines 21-22) and a package of relatively 250 gauge is appropriate to package light materials (Polybags, Page 1).

Furthermore, although Harris et al. does not disclose a 250 (0.0004") gauge bag, the bag of Harris et al. (280 gauge or 0.00035") is only 5.0×10^{-5} thinner; therefore,

Harris et al. is substantially close to that of the instant claims on of ordinary skill would have expected compositions that are in such close proportions to those in prior art to be prima facie obvious, and to have same properties. *Titanium Metals Corp.*, 227 USPQ 773 (CAFC 1985).

In addition, Spaeti et al., Harris et al., Dill, Murakami, and Willard taken with the evidence given by Antioxidant Properties of Dry Soup and Polybags disclose everything that is presently claimed; therefore, the aforementioned intrinsically disclose that the packaged dry soup mix will have a shelf life of 8 months in 65% humidity at room temperature as presently claimed.

Regarding claim 12, Spaeti et al. discloses mixing the dry soup mix with hot water to form an instant soup but is silent to the ratio of soup mix to water; however, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the amount of soup mix and water to attain the most flavorful final product for the intended application, since it has been that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claims 13 and 15, Spaeti et al., Harris et al., Dill, Murakami, and Willard disclose everything from the aforementioned claim 1 and also disclose a free flowing instant soup mix with a moisture content of 3-5% (Harris et al., Abstract), a critical moisture content of 7-11% (Spaeti et al., Example 1) and 3% fat (Spaeti et al., Example 2).

Furthermore, it would have been obvious to one of ordinary skill in the soup art at the time of the invention to adjust the fat content of the final product to suit the dietary needs of the consumer. The examiner notes that the fat content of claims 13 and 15 does not coincide with the parent claim 1; therefore, the preceding prior art discloses the presently claimed invention.

Furthermore, Spaeti et al., Harris et al., Dill, Murakami, and Willard disclose everything that is presently claimed; therefore, Spaeti et al., Harris et al., Dill, Murakami, and Willard intrinsically disclose the free fatty acid mg/g is about 3.36, the peroxide value/g: nil, hunter color values as L, a, b is L: 73.0, a: -4.137, and b: 16.13 and total plate counts is about 18750/g and yeast and moulds is not present as presently claimed.

Regarding claim 14, Spaeti et al. discloses an instant soup mix (Abstract)

14. Claim 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Spaeti et al. (US 3987207) in view of Harris et al. (US 5232732) and Dill (NPL Document) and in further view of Murakami (US 6536689) and Willard (US 3535128) as applied to claim 3 above, and further in view of Burrows et al. (US 5084291), Hilton (US 3109739) taken with the evidence given by Borders et al. (US 3220857), and Tschirgi (US 3650776).

Regarding claim 4, Willard also discloses the process of dehydrating potatoes by first slicing the potatoes to a desired thickness, precooking the potatoes at a temperature between 155-175°F (68.3-79.4°C) in water for a period of 20 minutes, further cooling the potatoes to 60°F (15.6°C), again cooking the potatoes for 20-40

minutes in the water at 155-175°F (68.3-79.4°C), mashing the potatoes, drying the potatoes in a drum dryer, and finally powdering the potatoes in a sieve with a pore size of 0.045 inches (Col. 3, lines 60-75-Col. 4, lines 1-15; Col. 5, lines 4-12; Fig. 1, #20, 42).

Regarding the cooling time for the potatoes, the examiner notes that Willard requires the potatoes to cool to 60°F (15.6°C) and the applicant's presently claimed invention requires cooling between 12-17°C. Although, Willard is silent to the time that it takes to cool the potatoes to the desired temperature, since Willard's disclosed temperature falls within the claimed range, the cooling of the potatoes would intrinsically take 15-20 minutes to reach the temperature as discloses by Willard.

Furthermore, Willard and the claims differ in that Willard does not teach the exact same proportions of cooking temperatures recited in the instant claims.

However, one of ordinary skill in the art at the time of the invention was made would have considered the invention to have been obvious because the compositional proportions taught by Willard overlap the instantly claimed proportions and therefore are considered to establish a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art to select any portion of the disclosed ranges including the instantly claimed ranges from the ranges disclosed in the prior art reference, particularly in view of the fact that;

"The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages", In re Peterson 65 USPQ2d 1379 (CAFC 2003).

Willard does not disclose precooking the potatoes by autoclaving or the addition of potassium metabisulfite, whey protein concentrate, and monosodium glutamate to the potato mash.

Burrows et al. discloses steam blanching (autoclaving) potato strips before cooking and drying them (Col. 3, lines 30-36; Example 1). Hilton discloses the addition of 0.3% aqueous solution of sodium metabisulfite (Example 5) and 1 part by weight of monosodium glutamate (Col. 4, lines 38-42; Example 1) to potatoes to form potato products. Tschirgi discloses the addition of sweet dried whey to a liquid potato product that is further dehydrated (Col. 1, lines 51-60; Example).

It would have been obvious to one of ordinary skill in the potato art at the time of the invention to modify the process of dehydrating potatoes of Willard to include the steam blanching (autoclaving) of Burrows et al. because it would minimize the leaching of natural sugars and flavor components, inactivate the enzymes present in the raw potato that induce oxidation (Col. 3, lines 37-41). It would have been obvious to one of ordinary skill in the potato art at the time of the invention to modify the process of dehydrating potatoes of Willard to include the addition of sodium metabisulfite and monosodium glutamate of Hilton because the sodium metabisulfite inhibits post-slice browning and darkens the potatoes (Borders et al., Col. 8, lines 50-54) and the monosodium glutamate improves the flavor, color, and other properties of the final product (Hilton; Col. 4, lines 37-41). It would have been obvious to one of ordinary skill in the potato art at the time of the invention to modify the process of dehydrating

potatoes of Willard to include the addition of whey of Tschirgi because it would allow the potato to retain its natural coloring and appearance (Col. 1, lines 60-61).

Furthermore, the examiner notes that one of ordinary skill in the art at the time of the invention would substitute sodium metabisulfite for the potassium metabisulfite because they have the same function in the applicant's presently claimed invention.

Hilton discloses the addition sodium metabisulfite and monosodium glutamate to potatoes but is silent to the exact amounts added; however, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the amount of sodium metabisulfite and monosodium glutamate because it would inhibits post-slice browning and darkens the potatoes (Borders et al., Col. 8, lines 50-54) and the monosodium glutamate improves the flavor, color, and other properties of the final product (Hilton; Col. 4, lines 37-41) for the intended application, since it has been held that discovering an optimum value or a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Tschirgi discloses the addition sweet dried whey to potatoes but is silent to the exact amounts added; however, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the amount of whey because it would allow the potato to retain its natural coloring and appearance (Col. 1, lines 60-61) for the intended application, since it has been held that discovering an optimum value or a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

15. Claim 5 rejected under 35 U.S.C. 103(a) as being unpatentable over Spaeti et al. (US 3987207) in view of Harris et al. (US 5232732) and Dill (NPL Document) and in further view of Murakami (US 6536689), Willard (US 3535128), Burrows et al. (US 5084291), Hilton (US 3109739) taken with the evidence given by Borders et al. (US 3220857), and Tschirgi (US 3650776) as applied to claim 4 above, and further in view of Burrows et al. (US 5084291) and Hilton (US 3109739) taken with the evidence given by Borders et al. (US 3220857).

Regarding claim 5, Willard also discloses the process of dehydrating potatoes by first slicing the potatoes to a desired thickness and finally powdering the potatoes in a sieve with a pore size of 0.045 inches (Col. 3, lines 60-75-Col. 4, lines 1-15; Col. 5, lines 4-12; Fig. 1, #20, 42).

Willard does not disclose autoclaving the potatoes, the addition of potassium metabisulfite, and drying the potatoes in a cabinet dryer.

Burrows et al. discloses steam blanching (autoclaving) potato strips and drying the potatoes in a cabinet dryer from 150-225°F (65.6-107.2°C) for 4-15 minutes (Col. 3, lines 30-36; Col. 4, lines 10-18; Example 1). Hilton discloses the addition of 0.3% aqueous solution of sodium metabisulfite (Example 5).

It would have been obvious to one of ordinary skill in the potato art at the time of the invention to modify the process of dehydrating potatoes of Willard to include the autoclaving and drying the potatoes in a cabinet dryer of Burrows et al. because it would minimize the leaching of natural sugars and flavor components, inactivate the enzymes present in the raw potato that induce oxidation (Col. 3, lines 37-41). Furthermore, the

use of a cabinet dryer is also well known in the art. It would have been obvious to one of ordinary skill in the potato art at the time of the invention to modify the process of dehydrating potatoes of Willard to include the addition of sodium metabisulfite of Hilton because the sodium metabisulfite inhibits post-slice browning and darkens the potatoes (Borders et al., Col. 8, lines 50-54).

Furthermore, the examiner notes that one of ordinary skill in the art at the time of the invention would substitute sodium metabisulfite for the potassium metabisulfite because they have the same function in the applicant's presently claimed invention.

In addition, the temperature of Burrows et al. is substantially close to that of the instant claims one of ordinary skill would have expected temperatures that are in such close proportions to those in prior art to be prima facie obvious, and to have same properties. *Titanium Metals Corp.*, 227 USPQ 773 (CAFC 1985).

Burrows et al. discloses the addition sodium metabisulfite to potatoes but is silent to the exact amounts added; however, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the amount of sodium metabisulfite and monosodium glutamate because it would inhibits post-slice browning and darkens the potatoes (Borders et al., Col. 8, lines 50-54) for the intended application, since it has been held that discovering an optimum value or a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Burrows et al. discloses drying the potatoes in a cabinet dryer but does not disclose the lengthened time period of the presently claimed; however, it would have

been obvious to one having ordinary skill in the art at the time of the invention to adjust the time of drying to 6-8 hours because it would allow for the appropriate moisture content of the final product for the intended application, since it has been held that discovering an optimum value or a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

16. Claim 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Spaeti et al. (US 3987207) in view of Harris et al. (US 5232732) and Dill (NPL Document) and in further view of Murakami (US 6536689), Willard (US 3535128), Burrows et al. (US 5084291), Hilton (US 3109739) taken with the evidence given by Borders et al. (US 3220857), and Tschirgi (US 3650776) as applied to claim 4 above, and further in view of Prater et al. (US 2957771).

Regarding claim 6, Spaeti et al. in view of Harris et al. and Dill and in further view of Murakami, Willard, Burrows et al., Hilton taken with the evidence given by Borders et al., and Tschirgi disclose everything from the aforementioned claim 4.

The preceding does not disclose drying and grinding of onion by slicing the onion, drying the onion, and grinding to form onion powder.

Prater et al. discloses forming dehydrated onion powder by first slicing the onion (Col. 3, lines 22-26; Col. 4, lines 1-4), drying the onion from a temperature between 130-230°F (54.4-110°C), and milling the onion so 25% passes through a 60 mesh sieve (251µm) and a 100 mesh sieve (152µm) (Col. 4, lines 9-22).

It would have been obvious to one of ordinary skill in the onion art at the time of the invention to modify the process drying onion to include the drying and milling of

Prater et al. because it allows for the final product to be more uniform and possess strong flavor effects (Col. 1, lines 31-35).

Prater et al. and the claims differ in that Prater et al. does not teach the exact same proportions of temperature as recited in the instant claims.

However, one of ordinary skill in the art at the time of the invention was made would have considered the invention to have been obvious because the compositional proportions taught by Prater et al. overlap the instantly claimed proportions and therefore are considered to establish a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art to select any portion of the disclosed ranges including the instantly claimed ranges from the ranges disclosed in the prior art reference, particularly in view of the fact that;

"The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages", In re Peterson 65 USPQ2d 1379 (CAFC 2003).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUSTIN WOLF whose telephone number is (571)270-7085. The examiner can normally be reached on M-Th 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on (571)272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/J. W./
Examiner, Art Unit 1794

/JENNIFER MCNEIL/
Supervisory Patent Examiner, Art Unit 1794